



Supplementary Figure S1. Temporal distribution of non-neonatal tetanus cases from July 2011 to July 2021. (A) The time of disease onset of non-neonatal tetanus patients (month, year). (B) Trend in the number of non-neonatal tetanus cases over time (by year).

Supplementary Table S1. Grading of the severity of tetanus according to the Ablett scale

Grade	Trismus	Spasms	Dysphagia	Respiratory embarrassment	Autonomic nervous dysfunction
I	Mild to moderate	No	Little or no	No	No
II	Moderate	Mild to moderate but short	Mild	Respiratory rate 30–40	No
III	Severe	Severe, persistent	Severe	Respiratory rate > 40, apnoeic spells	Tachycardia > 120
IV	Severe	Severe, persistent	Severe	Respiratory rate > 40, apnoeic spells	Severe hypertension, tachycardia, hypotension, bradycardia

Supplementary Table S2. Comparison of latency at different etiological sites in non-neonatal tetanus patients

Variables	Head and neck	Trunk	Upper extremity	Lower extremity	Multiple sites	χ^2 value	P value
Incubation period [M (IQR)]	5.00 (6.00) ^a	30.00 (0.00)	7.00 (5.00)	9.50 (10.25)	7.00 (10.50)	18.39	< 0.01

Note. Kruskal–Wallis test was used to compare incubation period among different etiological sites.
^aCompared with lower limb group.

Supplementary Table S3. Co-morbidities and complications of patients with non-neonatal tetanus

	Characteristics	Number of cases (persons)	Composition ratio (%)
Co-morbidities	Hypertension	24	10.17
	Tuberculosis	21	8.90
	Cerebrovascular disease	17	7.20
	Chronic liver disease	14	5.93
	Coronary artery disease	7	2.97
	Diabetes	7	2.97
	Cancer	6	2.54
	AIDS	6	2.54
	Heart valve diseases	4	1.70
	Autoimmune rheumatic disease	4	1.70
	Arrhythmia	2	0.85
Complications	Secondary infection	159	67.37
	Respiratory failure	45	19.07
	Electrolyte disturbances	38	16.10
	Hypoalbuminemia	34	14.41
	Hypohepatia	31	13.13
	Myocardial injury	22	9.32
	Autonomic dysfunction	16	6.78
	Renal insufficiency	11	4.66
	Asphyxia	9	3.81
	Hypoxic-ischemic encephalopathy	8	3.39
	Sepsis	7	2.97
	Cardiac failure	5	2.11
	Acute pancreatitis	5	2.11
	Gastrointestinal hemorrhage	4	1.70
	Coagulation dysfunction	4	1.70
	Toxic encephalopathy	3	1.27
	Acute myocardial infarction	3	1.27
	Pressure ulcer	3	1.27
	Thrombogenesis	2	0.85

Supplementary Table S4. Univariate analysis of risk factors of disease outcome in non-neonatal tetanus patients

Variables	Outcome		χ^2/Z value	P value
	Died, n (%)	Alive, n (%)		
Age [years, <i>M (IQR)</i>]	63.00 (23.00)	60.00 (20.00)	-1.24 ^a	0.22
Time from onset to initial visit [d, <i>M (IQR)</i>]	1.00 (1.00)	3.00 (4.00)	-3.22 ^a	< 0.01
Incubation period [d, <i>M (IQR)</i>]	5.50 (7.00)	8.00 (10.00)	-2.43 ^a	0.02
Gender			0.18 ^b	0.67
Male	15 (12.30)	107 (87.70)		
Female	12 (10.53)	102 (89.47)		
Forms of tetanus			2.77 ^b	0.10
Systemic	27(12.92)	182 (87.08)		
Localized/Cerebral	0 (0.00)	27 (100.00)		
ICU admission			1.99 ^b	0.16
No	17 (9.71)	158 (90.29)		
Yes	10 (16.39)	51 (83.61)		
Tracheal intubation or tracheotomy			18.10 ^b	< 0.01
No	8 (5.13)	148 (94.87)		
Yes	19 (23.75)	61 (76.25)		
Grading of disease severity			64.80 ^b	< 0.01
I	0 (0.00)	50 (100.00)		
II	1 (0.91)	109 (99.09)		
III	15 (25.00)	45 (75.00)		
IV	11 (68.75)	5 (31.25)		
Co-morbidities				
Chronic liver disease	1 (7.14)	13 (92.86)	0.01 ^b	0.93
Tuberculosis	0 (0.00)	21 (100.00)	1.87 ^b	0.17
Hypertension	2 (8.33)	22 (91.67)	0.03 ^b	0.87
Coronary artery disease	1 (14.29)	6 (85.71)	-	0.58
Heart valve diseases	0 (0.00)	4 (100.00)	-	1.00
Arrhythmia	0 (0.00)	2 (100.00)	-	1.00
Autoimmune rheumatic disease	0 (0.00)	4 (100.00)	-	1.00
Cerebrovascular disease	3 (17.65)	14 (82.35)	0.19 ^b	0.66
Diabetes	3 (42.86)	4 (57.14)	-	0.03
Cancer	2 (33.33)	4 (66.67)	-	0.14
AIDS	2 (33.33)	4 (66.67)	-	0.14
Complications				
Hypoxic-ischemic encephalopathy	4 (50.00)	4 (50.00)	-	0.01
Toxic encephalopathy	0 (0.00)	3 (100.00)	-	1.00
Secondary infection	24 (15.09)	135 (84.91)	6.42 ^b	0.01
Respiratory failure	21 (46.67)	24 (53.33)	68.10 ^b	< 0.01
Asphyxia	8 (88.89)	1 (11.11)	47.73 ^b	< 0.01

Continued

Variables	Outcome		χ^2/Z value	P value
	Died, n (%)	Alive, n (%)		
Cardiac failure	3 (60.00)	2 (40.00)	-	0.01
Myocardial injury	6 (27.27)	16 (72.73)	4.40 ^b	0.04
Acute myocardial infarction	2 (66.67)	1 (33.33)	-	0.04
Gastrointestinal hemorrhage	0 (0.00)	4 (100.00)	-	1.00
Acute pancreatitis	3 (60.00)	2 (40.00)	-	0.01
Hypohepatia	6 (19.35)	25 (80.65)	1.40 ^b	0.24
Renal insufficiency	7 (63.64)	4 (36.36)	25.86 ^b	< 0.01
Electrolyte disturbances	6 (15.79)	32 (84.21)	0.41 ^b	0.52
Hypoalbuminemia	5 (14.71)	29 (85.29)	0.13 ^b	0.72
Coagulation dysfunction	0 (0.00)	4 (100.00)	-	1.00
Pressure ulcer	1 (33.33)	2 (66.67)	-	0.31
Sepsis	2 (28.57)	5 (71.43)	-	0.19
Thrombogenesis	0 (0.00)	2 (100.00)	-	1.00

Note. ^aRepresents the Z values derived from Mann-Whitney U test. ^bRepresents the χ^2 values derived from chi-squared test. Fisher's exact probability test was used for the remaining variables.

Supplementary Table S5. Binary logistic regression analysis of risk factors for disease outcome in non-neonatal tetanus patients

Variables	OR	95% CI	P value
Time from onset to initial visit	1.11	(0.91, 1.36)	0.30
Incubation period	1.00	(0.99, 1.01)	0.72
Tracheal intubation or tracheotomy	0.36	(0.02, 6.58)	0.49
Grading of disease severity	54.97	(5.55, 544.15)	< 0.01
Diabetes	13.72	(0.61, 310.75)	0.10
Hypoxic-ischemic encephalopathy	0.44	(0.03, 6.51)	0.55
Secondary infection	0.12	(0.00, 19.36)	0.41
Respiratory failure	14.19	(1.84, 109.36)	0.01
Asphyxia	84.18	(3.62, 1,959.83)	< 0.01
Cardiac failure	279.68	(4.31, 18,140.28)	< 0.01
Myocardial injury	0.41	(0.02, 8.54)	0.56
Acute myocardial infarction	19.21	(0.04, 9,514.50)	0.35
Acute pancreatitis	8.60	(0.43, 172.56)	0.16
Renal insufficiency	84.45	(2.30, 3,104.41)	0.02

Supplementary Table S6. Correlation analysis of grading of disease severity in non-neonatal tetanus patients

Variables	r value
Length of hospital stay	0.28*
Hospitalization expenses	0.41*
ICU admission rate	0.58*
Tracheal intubation or tracheotomy rate	0.71*

Note. Spearman analysis was used for the correlation analysis. *P value < 0.05.